

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A data storage system, comprising:
a plurality of read/write heads, each read/write head of said plurality of read/write heads having a plurality of read/write elements;
a plurality of data channels, a subset of said plurality of data channels coupled to a read/write head of said plurality of read/write heads; and
a storage medium, said storage medium including a plurality of storage bands, wherein each read/write head is uniquely associated with a single storage band such that the read/write heads are alignable with a single mode of operation, and each read/write element is associated with a corresponding one of said plurality of data channels and operable to read and write data from or to corresponding tracks of a corresponding storage band ~~access at least said subset of said plurality of data channels.~~

2. (Original) The data storage system of claim 1, wherein said data storage system comprises a magnetic tape drive.

3. (Currently Amended) The data storage system of claim 1, wherein said plurality of read/write heads comprises at least one read/write head having a read/write element configured for read after write operation as the storage medium travels in a first direction and at least one read/write head having a write/read element configured for read after write operation as the storage medium travels in a second direction opposite the first direction.

4. (Withdrawn) The data storage system of claim 1, wherein said plurality of read/write heads comprises at least one read/write head of a read/write/read configuration and at least one read/write head of a write/read/write configuration.

5. (Canceled)

6. (Previously Presented) The data storage system of claim 1, wherein each of said plurality of read/write heads is displaced in a direction of travel of the storage medium relative to an adjacent read/write head.

7. (Previously Presented) The data storage system of claim 1, wherein each of said plurality of read/write heads is coupled to at least two data channels.

8. (Canceled).

9. (Cancelled).

10. (Previously Presented) A read/write head assembly, comprising:
a plurality of read/write heads, each read/write head of said plurality of read/write heads having a plurality of read/write elements each operable to read and write data from or to corresponding tracks of a corresponding storage band of a plurality of storage bands arranged on a storage medium with each read/write head being uniquely associated with a single storage band; and
a plurality of data channels corresponding to the plurality of read/write elements, a subset of said plurality of data channels coupled to a read/write head of said plurality of read/write heads.

11. (Original) The read/write head assembly of claim 10, wherein said storage medium comprises a magnetic tape.

12. (Previously Presented) The read/write head assembly of claim 10, wherein said plurality of read/write heads comprises at least one read/write head having a read/write element configured for read after write operation when the storage medium travels in a first direction and at least one read/write head having a write/read element configured for read after write operation when the storage medium travels in a second direction.

13. (Withdrawn) The read/write head assembly of claim 10, wherein said plurality of read/write heads comprises at least one read/write head of a

read/write/read configuration and at least one read/write head of a write/read/write configuration.

14. (Canceled).

15. (Original) The read/write head assembly of claim 10, wherein said subset of said plurality of data channels comprises a read channel and a write channel.

16. (Previously Presented) The read/write head assembly of claim 10, wherein each of said plurality of read/write heads is coupled to a plurality of data channels associated with one of said plurality of storage bands.

17-18. (Canceled).

19. (Previously Presented) The read/write head assembly of claim 10, further comprising:

an actuation unit, said actuation unit operable to align at least one read/write head of said plurality of read/write heads with said corresponding storage band of said plurality of storage bands with a fine positioning operation.

20. (Canceled).

21. (Previously Presented) A data storage system comprising:

a plurality of read/write heads each associated with a corresponding one of a plurality of storage bands extending across a magnetic storage medium wherein each of the plurality of read/write heads is displaced along a direction of travel of the magnetic storage medium relative to an adjacent read/write head and wherein each of the plurality of read/write heads is coupled to at least one of a plurality of data channels.

22. (Currently Amended) The data storage system of claim 21 wherein each of the plurality of read/write heads comprises:

a plurality of read/write elements for reading from and writing to, respectively, a corresponding one of a plurality of data channels associated with each of the plurality of storage bands on the magnetic storage medium.

23. (Previously Presented) The data storage system of claim 21 wherein at least one of the plurality of read/write heads comprises a read/write element configured for read after write operation as the magnetic storage medium travels in a first direction and at least one of the plurality of read/write heads comprises a write/read element configured for read after write operation as the magnetic storage medium travels in a direction opposite the first direction.

24. (Previously Presented) The data storage system of claim 21 wherein at least one of the plurality of read/write heads comprises a read/write element configured for read after write operation as the magnetic storage medium travels in a first direction and at least one write/read element configured for read after write operation as the magnetic storage medium travels in a direction opposite the first direction.